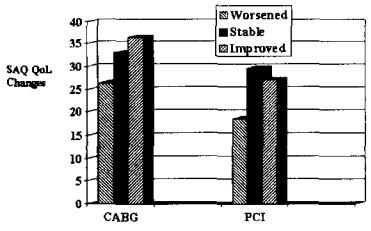
1047-54 Loss in Social Support Is Associated With Reduced Quality of Life Benefits After Coronary Revascularization

Sirisha R. Mallemala, Philip G. Jones, A. Michael Borkon, Catherine Woodman, John A. Spertus, Mid America Heart Institute, Kansas City, MO

Background: We have previously established that the social support(SS) of men after coronary revascularization is stable while women showed a steady decline over 6 months and others have demonstrated that SS is associated with survival after acute myocardial infarction. The purpose of this study is to examine the impact of change in SS on Quality of Life (QoL)after revascularization. **Methods:** Prospective observational registry of 495 consecutive patients (pts) treated with either PCI (271 pts) or CABG (224 pts) at Mid America Heart Institute were evaluated at baseline and at monthly intervals for 6 months after the procedure. SS was quantified with the Enriched Social Support Inventory (ESSI) and QOL along with physical function(PL) and angina frequency (AF) was measured with the Seattle Angina Questionnaire. An ANCOVA model controlling for baseline health status was used to assess the effect of a change in ESSI scores (grouped as diminished, stable or improved) on 6-month changes in QOL scores.
Results: No significant differences in PL or AF scores were noted for the different social support groups. The QoL benefits, however, did differ in association with the changes in social support. The graph demonstrates the statistically significant lower QoL benefits derived from CABG (p = 0.017) and PCI (p = 0.007) among those who had a decrease in their SS as compared with those that were stable or had improved SS.



Conclusions: Loss in social support is associated with less quality of life benefits from PCI and CABG.

1047-55 Smoking Affects Disease Specific Functional Recovery After Percutaneous Coronary Intervention

Mukesh Garg, Keith Haddock, Carlos Poston, John A. Spertus, Mid America Heart Institute, St. Luke's Hospital, Kansas City, MO, Truman Medical Center, University of Missouri Kansas City School of Medicine, Kansas City, MO

Background: Much has been written about smoking as a risk factor for CAD and it's influence on clinical outcome after MI. Yet, little information is available about influence of smoking on disease specific functional status following PCI. **Methods:** This study prospectively tracked 248 patients' functional status at baseline and at monthly intervals for 6 months after CABG .The Seattle Angina Questionnaire (SAQ) was used to assess angina frequency, physical limitation due to angina, and disease specific quality of life (QOL). SAQ scores range 0-100 where higher scores indicate better functioning. Based on self-reported smoking status patients were divided into never smokers (n=94), ex-smokers (n=111) and current smokers (n= 43). All models include adjustment for age, gender, hypertension, number of diseased vessels, ejection fraction <40%, creatinine >2 and baseline assessment score. **Results:** Prior to PCI, current smokers, ex and never smokers had similar angina frequency (mean SAQ scores 63 ± 26, 59 ± 28 and 63 ± 29 p = .53); comparable physical limitation (mean SAQ scores 63 ± 29, 70 ± 24 and 68 ± 27; p = .32) and no difference in QOL (mean SAQ scored 48 ± 23, 52 ± 22 and 50 ± 23; p = .57). One year after PCI current smokers achieved substantially less benefit compared to ex and never smokers. Current smokers had more frequent angina than ex and never smokers (79 ± 30 vs 93 ± 13 and 92 ± 18; p = .02), and were more physically limited (70 ± 27 vs 90 ± 17 and 86 ± 20; p = .02). Current smokers also had worse QOL compared to ex and never smokers (mean SAQ scores 70 ± 24 vs 86 ± 14 and 84 ± 19; p= .003) Baseline variables (gender distribution, ethnicity, education, diabetes, no. of diseased vessels, EF, renal insufficiency, prior MI, PCI or CABG) were similar in the three groups, except that current smokers were younger (mean age 55 vs 66 for ex and never smokers) and were less likely to be hypertensive (50 vs 72 and 75% of ex and never smokers).
Conclusion: Smoking adversely effects recovery of functional status following PCI. Quantitative information on differential recovery of function following PCI should help in choosing revascularization procedures, and motivate behavioral changes, in smokers with CAD.

Special Topics

1047-56 Social Support as a Predictor of Participation in Cardiac Rehabilitation After Coronary Artery Bypass Graft

Liudmila N. Husak, Zhenqiu Lin, Jennifer Mattera, Sarah Roumanis, Harlan M. Krumholz, Viola Vaccarino, Emory University, Atlanta, GA, Yale University, New Haven, CT

Background. Cardiac rehabilitation (rehab) promotes recovery and enhances quality of life after CABG. However, participation in rehab is low. Several studies attempted to identify predictors of participation. While the beneficial impact of spousal support was demonstrated, social support in a broader sense has not been fully examined. Methods. We examined 945 patients who underwent first isolated CABG between May, 1999, and February, 2001 and were followed for 6 months after surgery. Social support before CABG and 6 weeks after CABG was assessed by means of the ENRICHD Social Support Inventory (ESSI). Low social support was defined as an ESSI score <22. Results. A total of 524 (55%) patients reported participation in rehabilitation. Participants were younger, better educated, more often worked and were less financially strained. Participants also had lower prevalence of CVD risk factors and better physical function. In unadjusted analysis, patients with low ESSI score before surgery were less likely to participate in rehab than those with higher score (52% vs 59%, OR=0.77, 95% CI 0.59-0.99). However, adjustment for demographic factors, medical history, CVD risk factors, physical and psychological function and hospital complications attenuated this association (adjusted OR=0.83, 95% CI 0.59-1.18). A low ESSI score measured at 6 weeks after CABG similarly did not significantly affect rehab participation (adjusted OR=0.91 95% CI 0.65-1.29). Conclusion. Contrary to what is generally believed, social support may not be a strong determinant of participation in rehab after CABG.

1047-57 Assessment of Health-Related Quality of Life Among Patients Undergoing Peripheral Percutaneous Intervention: The ALEVE (Assessment of Lower Extremity reVascularization outcomEs) Study

Roberto A. Corpus, Jr., John A. House, William C. Daniels, Steven B. Laster, John A. Spertus, Steven P. Marso, Mid America Heart Institute, Kansas City, MO

Background: There is a paucity of data substantiating benefit among patients undergoing peripheral percutaneous intervention (PPI). Health status outcomes have evolved as a potential tool to quantify benefit among patients undergoing PPI. The Peripheral Vascular Disease Questionnaire (PVDQ) is a recently developed 21-item self-administered Likert-style instrument that assess functional and quality of life (QOL) limitations specifically due to peripheral arterial disease. **Methods**: ALEVE is a prospective single center registry of patients undergoing PPI of infra-renal arteries for symptoms of lifestyle limiting claudication. Health related QOL measurements utilizing the PVDQ in addition to other health outcome tools such as the European Quality of Life Questionnaire (EuroQOL) and the short form-12 (SF-12) are currently being performed on 300 patients at baseline, 1,3,6 and 12 months following PPI. The primary endpoint of the study is QOL 30 days after PPI.
Results: Prior studies have demonstrated that the PVDQ has good internal consistency, reproducibility, and responsiveness. The PVDQ was shown to correlate well with the SF-12 and the EuroQoL. Preliminary data on 126 patients with 30-day follow-up is presented below:

	Baseline (n=164)	30 Day (n=126)	p-value
Short Form 12			
Physical component	37 ± 6	44 ± 6	≤ 0.0001
Mental component	45 ± 8	49 ± 5	< 0.0001
EuroQOL			
Descriptive Score	0.7 ± .2	0.8 ± 0.1	≤ 0.0001
Visual Score	0.6 ± 0.2	0.7 ± 0.2	≤ 0.0001
PVDQ Domain			
Physical Limitation	25 ± 21	69 ± 27	≤ 0.0001
Symptom Stability	37 ± 26	77 ± 26	≤ 0.0001
Symptoms	34 ± 21	73 ± 22	≤ 0.0001
Disease Perception	37 ± 24	78 ± 20	≤ 0.0001
Treatment Satisfaction	80 ± 22	89 ± 16	≤ 0.0001
Social Limitation	42 ± 29	77 ± 27	≤ 0.0001
Sexual Limitation	54 ± 41	80 ± 27	≤ 0.0001

Conclusions: PPI of lower extremity arteries is associated with substantial improvement in QOL. Additionally, the PVDQ may be an ideal tool to assess functional and QOL outcomes following PPI.